

IN THE CLAIMS:

Please amend claims 1-23 as follows.

1. (Currently Amended) A method of generating modulator output signal values when employing a multi-level modulation method, the method comprising:

storing a pre-defined number of values corresponding to data symbols and representing a signal or a pulse format,

selecting values representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format to be used to define in-phase and quadrature component values,

defining the in-phase and ~~the~~ quadrature component values using the selected values representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format, *and*

defining the modulator output signal values by summing the in-phase and ~~the~~ quadrature component values while the number of the in-phase and ~~the~~ quadrature component values to be summed is determined by ~~[[the]]~~ a number of inter-dependent symbols.

2. (Currently Amended) ~~[[A]]~~ The method as claimed in claim 1, wherein the modulator output signal values being formed are base-band values:

3. (Currently Amended) ~~[[A]]~~ The method as claimed in claim 1, wherein the values representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format are stored in a look-up table.

4. (Currently Amended) ~~[[A]]~~ The method as claimed in claim 1, wherein the values representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format are stored in a format which also comprises an offset-rotation of the signal.

5. (Currently Amended) ~~[[A]]~~ The method as claimed in claim 1, further comprising storing, ~~according to the modulation method,~~ values corresponding to each data symbol and representing ~~[[a]]~~ the signal ^{or} ~~[[a]]~~ the pulse format.

6. (Currently Amended) ~~[[A]]~~ The method as claimed in claim 1, wherein at least one ~~of the values~~ ^{the} ~~value~~ corresponding to data symbols and representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format used to define the in-phase and ~~the~~ ^{component} quadrature values is formed of one real-value signal.

7. (Currently Amended) ~~[[A]]~~ The method as claimed in claim 1, wherein at least one ~~of the values~~ ^{the} ~~value~~ corresponding to data symbols and representing the signal or the pulse format used to define the in-phase and ~~the~~ ^{component} quadrature values is formed of two real-value signals.

8. (Currently Amended) ~~[[A]]~~ ^{The} ~~A~~ method as claimed in claim 1, wherein in 8-PSK modulation, a corresponding 16-PSK-modulated symbol is defined, and a decision is made on which one of the stored values representing the signal or the pulse format is used

to form the modulator output signal values value and ~~what are~~ the signs of the values representing ~~[[a]] the signal or [[a]] the pulse format in the~~ modulator output signal values value summing expression ~~of the modulator.~~

9. (Currently Amended) ~~[[A]]~~ The method as claimed in claim 1, wherein the number of inter-dependent symbols is determined on ~~[[the]]~~ a basis of the properties of ~~[[the]]~~ a system filter.

10. (Currently Amended) ~~[[A]]~~ The method as claimed in claim 1, wherein the *multi-level modulation* ~~modulation method of generating modulator output signal values~~ is multi-level phase shift keying.

11. (Currently Amended) ~~[[A]]~~ The method as claimed in claim 1, wherein the values representing ~~[[a]] the signal or [[a]] the pulse format~~ are samples of a modulating signal.

12. (Currently Amended) A transmitter in which modulator output signal values are generated by a multi-level modulation method, the transmitter comprising:

means for storing a pre-defined number of values corresponding to data symbols and representing a signal or a pulse format,

means for selecting values representing ~~[[a]] the~~ signal or ~~[[a]] the~~ pulse format to be used to define in-phase and quadrature component values,

means for defining ~~the~~ in-phase and ~~the~~ quadrature component values using the selected values representing ~~[[a]] the~~ signal or ~~[[a]] the~~ pulse format, *and*

means for defining ~~the~~ modulator output signal values by summing ~~the~~ in-phase and ~~the~~ quadrature component values while the number of ~~the~~ in-phase and ~~the~~ quadrature component values to be summed is determined by ~~[[the]] a~~ number of inter-dependent symbols.

13. (Currently Amended) ~~[[A]] The~~ transmitter as claimed in claim 12, wherein ~~[[he]] the modulator~~ output signal values to be formed are base-band values.

14. (Currently Amended) ~~[[A]] The~~ transmitter as claimed in claim 12, wherein the values representing ~~[[a]] the~~ signal or ~~[[a]] the~~ pulse format are stored in a look-up table.

15. (Currently Amended) ~~[[A]] The~~ transmitter as claimed in claim 12, wherein the values representing ~~[[a]] the~~ signal or ~~[[a]] the~~ pulse format are stored in a format which also comprises an offset-rotation of the signal.

16. (Currently Amended) ~~[[A]]~~ The transmitter as claimed in claim 12, further comprising means for storing, ~~according to the modulation method,~~ values corresponding to each data symbol and representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format.

17. (Currently Amended) ~~[[A]]~~ The transmitter as claimed in claim 12, wherein at least one value corresponding to ^{the} ~~data~~ symbols and representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format used to define the in-phase and ~~the~~ quadrature ^{component} ~~values~~ is formed of one real-value signal.

18. (Currently Amended) ~~[[A]]~~ The transmitter as claimed in claim 12, wherein at least one value corresponding to ^{the} ~~data~~ symbols and representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format used to define the in-phase and ~~the~~ quadrature ^{component} ~~values~~ is formed of two real-value signals.

19. (Currently Amended) ~~[[A]]~~ The transmitter as claimed in claim 12, wherein in 8-PSK modulation, a corresponding 16-PSK-modulated symbol is defined, and a decision is made on which one of the stored values representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format is used to form the modulator output signal values value and ~~what are~~ the signs of the values representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format in ~~[[the]]~~ an output signal value summing expression ~~of the modulator~~.

20. (Currently Amended) ~~[[A]]~~ The transmitter as claimed in claim 12, wherein the number of inter-dependent symbols is determined on the basis of the properties of ^a~~the~~ system filter.

21. (Currently Amended) ~~[[A]]~~ The transmitter as claimed in claim 12, wherein the multi-level modulation method is multi-level phase shift keying.

22. (Currently Amended) ~~[[A]]~~ The transmitter as claimed in claim 12, wherein the values representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format are samples of a modulating signal.

23. (Currently Amended) A transmitter in which modulator output signal values are generated by a multi-level modulation method, the transmitter is configured to:

store a pre-defined number of values corresponding to data symbols and representing a signal or a pulse format,

select values representing ^{the}~~a~~ signal or ^{the}~~a~~ pulse format to be used to define in-phase and quadrature component values,

~~define~~ ^{the}define in-phase and quadrature component values using the selected values representing ~~[[a]]~~ the signal or ~~[[a]]~~ the pulse format, *and*

~~the~~
define modulator output signal values by summing the in-phase and ~~the~~ quadrature component values while the number of the in-phase and ~~the~~ quadrature component values to be summed is determined by [[the]] a number of inter-dependent symbols.